

WHAT IS CLAIMED IS:

1. An image process device including an image process unit and a system control unit,  
wherein

5                   the image process unit comprises:

                  an image input interface that receives  
inputs of image data from an image input device;

                  data packet generating means for  
generating data packets from image data;

10                   first packet transfer means for  
transferring the data packets to the system control  
unit; and

                  an image output interface that outputs  
image data to an image output device,

15                   the system control unit comprises:

                  memory control means for having a memory  
store the data packets transferred from the image  
process unit and reading out the data packets from  
the memory; and

20                   second packet transfer means for  
transferring the data packets to the image process  
unit, and

                  the first and second packet transfer means  
transfer packets using mutually different connection  
25                   paths between the system control unit and the image  
process unit.

2. The image process device according to claim 1, wherein the system control unit and the image process unit are configured on mutually different semiconductor substrates.

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3. The image process device according to claim 1, wherein the system control unit further comprises command packet generating means for generating command packets to control operations of the image process unit in accordance with user's manipulations and transfers the command packets to the image process unit by using the second packet transfer means.

15 4. The image process device according to claim 1, wherein the image process unit further comprises interrupt packet generating means for generating interrupt packets to notify the system control unit of an interrupt, and transfers the interrupt packets to the system control unit by using the first packet transfer means.

5. The image process device according to claim 1, wherein  
25 the data packet generating means comprises:  
raster rectangle conversion means for converting raster image data into plural pieces of

rectangle image data;

means for generating an page ID that  
specifies a page of the image data; and

means for generating positional data that  
5 specifies a position of the rectangle image data, and  
the data packet includes at least the page ID,  
the positional data, and the rectangle image data.

6. The image process device according to claim  
10 5, wherein

the image process unit further comprises:

means for extracting the rectangle image  
data from the data packets; and

rectangle raster conversion means for  
15 converting the plural pieces of rectangle image data  
into the raster image data in accordance with the  
page ID and the positional data.

7. The image process device according to claim  
20 5, wherein the image process unit further comprises  
rectangle image process means for processing the  
rectangle image data.